

Dr. Duke's Phytochemical and Ethnobotanical Database

List of Plants for GERANIOL

| Plant | Part | Low PPM | High PPM | StdDev | Reference |
|-----------------------------|--------------------------|----------------|-----------------|----------------------|---|
| Acacia farnesiana | Flower | -- | -- | | Leung, A.Y., Encyclopedia of Common Natural Ingredients Used in Food, Drugs, and Cosmetics, John Wiley & Sons, New York, 1980. |
| Aeolanthus myriantha | Flower | -- | -- | | Wealth of India. |
| Aesculus hippocastanum | Flower Essent. Oil | -- | 4000 | | Jim Duke's personal files. |
| Allium sativum var. sativum | Bulb | -- | -- | | Williamson, E. M. and Evans, F. J., Potter's New Cyclopaedia of Botanical Drugs and Preparations, Revised Ed., Saffron Walden, the C. W. Daniel Co., Ltd., Essex UK, 362 pp, 1988, reprint 1989. |
| Aloysia citrodora | Plant | 5 | 420 | -0.37748772897210603 | -- |
| Anethum graveolens | Fruit | 24 | 154 | 0.33290806848468324 | -- |
| Anethum graveolens | Seed | 24 | 154 | -1 | Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980. |
| Aniba rosaeodora | Essential Oil | -- | -- | | -- |
| Artemisia annua | Plant | -- | -- | | Wright,C.W.(Ed)2002.Medicinal&Aromatic Plants-Industrial Profiles.Artemisia.344pp.Maffei,M.(Ed)2002.Vetiveria.The Genus Vetiveria.Taylor&Francis.NY,NY.191pp.Southwell,I.,Lowe,R.(Eds)1999.Tea Tree.The Genus Melaleuca.Harwood Acad.Pub.Amsterdam,Netherlands. |
| Artemisia dracunculus | Shoot | -- | -- | | -- |

| Plant | Part | Low PPM | High PPM | StdDev | Reference |
|--------------------------|---------------------|---------|----------|---------------------|--|
| Artemisia dracunculus | Shoot Essent. Oil | -- | -- | | -- |
| Asarum canadense | Rhizome | -- | -- | | -- |
| Asimina triloba | Fruit | 0 | 1.305 | -0.603926004906536 | -- |
| Boswellia serrata | Essential Oil | -- | 8000 | -0.590948793183161 | -- |
| Boswellia serrata | Resin, Exudate, Sap | -- | 1280 | | Sabinsa: A series of well documented proprietary PR booklets, e.g.Sabinsa Corps. 1998. Bronchial Asthma - Its etiology and control with traditional herbal extracts. Sabinsa Corporation. Piscataway, NJ. 49 pp. |
| Bursera delpechiana | Wood | 250 | 1200 | | -- |
| Camellia sinensis | Leaf | 2 | 2546 | 0.9520713467876748 | -- |
| Camellia sinensis | Shoot | 800 | 1200 | 0.24305714647507012 | -- |
| Camellia sinensis | Leaf Essent. Oil | 31600 | 1200 | 1.4840612491853453 | -- |
| Cananga odorata | Flower | -- | -- | | -- |
| Centella asiatica | Shoot | -- | -- | | Jim Duke's personal files. |
| Chenopodium ambrosioides | Plant | -- | -- | | -- |
| Cinnamomum camphora | Leaf | -- | -- | | -- |
| Cinnamomum verum | Bark | 6 | 24 | 1 | Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980. |

| Plant | Part | Low PPM | High PPM | StdDev | Reference |
|--------------------|------------------|---------|----------|----------------------|--|
| Cinnamomum verum | Leaf Essent. Oil | -- | -- | | -- |
| Cinnamomum verum | Root Bark | -- | -- | | -- |
| Cinnamomum verum | Stem Bark | -- | -- | | -- |
| Cistus ladaniferus | Leaf | 17 | 1190 | 0.32224662169044604 | -- |
| Citrullus lanatus | Fruit Juice | -- | -- | | -- |
| Citrus aurantium | Leaf | 200 | 350 | -0.06791028766181946 | List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979. |
| Citrus aurantium | Plant | -- | -- | | -- |
| Citrus limon | Essential Oil | -- | -- | | Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980. |
| Citrus limon | Leaf Essent. Oil | 13000 | 60200 | -0.6318280565838599 | Jim Duke's personal files. |
| Citrus limon | Pericarp | -- | -- | | Jim Duke's personal files. |
| Citrus limon | Petiole | -- | 80 | | -- |
| Citrus paradisi | Plant | -- | -- | | -- |
| Citrus paradisi | Pericarp | -- | 2 | | -- |
| Citrus reticulata | Fruit | 0 | 0.1 | -0.611319076444153 | -- |

| Plant | Part | Low PPM | High PPM | StdDev | Reference |
|------------------------|-------------------|---------|----------|----------------------|---|
| Citrus reticulata | Essential Oil | -- | -- | | -- |
| Citrus sinensis | Fruit | 0.7 | 1 | -0.6057972802749785 | -- |
| Coriandrum sativum | Fruit | 34 | 442 | 2.099882842620517 | -- |
| Coriandrum sativum | Essential Oil | -- | -- | | -- |
| Coriandrum sativum | Seed Essent. Oil | 6720 | 69700 | 0.1099647159636269 | -- |
| Crocus sativus | Silk Stigma Style | -- | -- | | -- |
| Cymbopogon citratus | Plant | 10 | 36 | -0.4434745122932419 | ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes. |
| Cymbopogon flexuosus | Plant | 875 | 2500 | -0.02005931931595359 | Leung, A.Y., Encyclopedia of Common Natural Ingredients Used in Food, Drugs, and Cosmetics, John Wiley & Sons, New York, 1980. |
| Cymbopogon martinii | Plant | 750 | 4750 | 0.36658198920632673 | List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979. |
| Cymbopogon nardus | Plant | 600 | 4794 | 0.37414297479520686 | List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979. |
| Cymbopogon parkeri | Plant | 2968 | 7474 | 0.8346757333906341 | Rizk, A.F.M., The Phytochemistry of the Flora of Qatar, Scientific and Applied Research Centre, University of Qatar, Kingprint, Richmond, UK, 1986. |
| Cymbopogon winterianus | Plant | 1064 | 3150 | 0.09163705870159405 | Guenther, E., The Essential Oils, 6 volumes, D. van Nostrand, New York, 1948-1952. |
| Daucus carota | Root | 10 | 8120 | 1 | -- |

| Plant | Part | Low PPM | High PPM | StdDev | Reference |
|------------------------|-------------------------|---------|----------|----------------------|---|
| Daucus carota | Seed | 10 | 8120 | 1 | -- |
| Elettaria cardamomum | Plant | 49 | 140 | -0.42560309181043426 | -- |
| Elettaria cardamomum | Seed Essent. Oil | -- | 5000 | -1.2760191391363693 | -- |
| Elettaria cardamomum | Fruit Essent. Oil | -- | 12000 | | -- |
| Elsholtzia blanda | Shoot | 49 | 49 | -0.4786940303445524 | Bestman, H.J., Rauscher, J., Vostrowsky O., Pant, A.K., Dev. V., Parihar, R. and Mathela, C.S. 1992. Constituents of the Essential Oil of Elsholtzia blanda Benth. (Labiatae). J. Ess. Oils Res. 4: 121-124 |
| Elsholtzia densa | Plant | -- | -- | | Hegnauer, R. 1962-1997. Chemotaxonomie der Pflanzen, Bde 1-11. Birkhauser Verlag Basel, Boston, Berlin. |
| Elsholtzia eriostachya | Shoot | 11 | 11 | -0.5025224792751741 | Pant, A.K., Dev, V., Parihar, R., Mathela,C.S., Rauscher, J., Vostrowsky, O. and Bestmann, H.J. 1992. The Essential Oil from Elsholtzia eriostachya var. pusilla. J. Ess. Oil Res. 4: 547-549. |
| Elsholtzia nipponica | Plant | -- | -- | | Chemical Constituents of Oriental Herbs (3 diff. books) |
| Elsholtzia polystachya | Leaf | 0.2 | 0.2 | -0.2303827720563701 | Mathela,C.S., Melkani,A.B., Bisht,J.C., Pant,A.K., Bestmann,H.J., Erler,J., Kobold,U., Rauscher,J. and Vostrowsky,O. 1992. Chemical Varieties of Essential Oils from Elsholtzia polystachya from Two Different Locations in India. Planta Medica 58: 376-379. |
| Elsholtzia polystachya | Leaf | -- | 0.2 | -0.2303827720563701 | Mathela,C.S., Melkani,A.B., Bisht,J.C., Pant,A.K., Bestmann,H.J., Erler,J., Kobold,U., Rauscher,J. and Vostrowsky,O. 1992. Chemical Varieties of Essential Oils from Elsholtzia polystachya from Two Different Locations in India. Planta Medica 58: 376-379. |

| Plant | Part | Low PPM | High PPM | StdDev | Reference |
|---------------------------|------|---------|----------|----------------------|---|
| Eucalyptus angulosa | Leaf | -- | 1.5 | -0.22977895779189628 | Bignell,C.M.,Dunlop,P.J.,Brophy,J.J.,and Jackson, J.F.1994.Volatile Leaf Oils of Some South-western and Southern Australian Species of the Genus Eucalyptus.Part I.Subgenus Symphyomyrtus,Section Dumaria,Series Incrassatae.Flavour and Fragrance J.9(3):113-7 |
| Eucalyptus behriana | Leaf | 0 | 0 | -0.23047566655859675 | Bignell, C.M., Dunlop, P.J., Brophy, J.J., and Jackson, J.F. 1995. Volatile Leaf Oils of Some South-western and Southern Australian Species of the Genus Eucalyptus. Part VI. Subgenus Symphyomyrtus, Section Adnataria. Flavour and Fragrance J. 10(6):359-364 |
| Eucalyptus ceratocorys | Leaf | -- | 11 | -0.2253664689361266 | Bignell,C.M.,Dunlop,P.J.,Brophy,J.J.,and Jackson, J.F.1994.Volatile Leaf Oils of Some South-western and Southern Australian Species of the Genus Eucalyptus.Part I.Subgenus Symphyomyrtus,Section Dumaria,Series Incrassatae.Flavour and Fragrance J.9(3):113-7 |
| Eucalyptus citriodora | Leaf | 250 | 1000 | 0.23399684457505263 | Guenther, E., The Essential Oils, 6 volumes, D. van Nostrand, New York, 1948-1952. |
| Eucalyptus cuprea | Leaf | 0 | 0 | -0.23047566655859675 | Bignell, C.M., Dunlop, P.J., Brophy, J.J., and Jackson, J.F. 1995. Volatile Leaf Oils of Some South-western and Southern Australian Species of the Genus Eucalyptus. Part VI. Subgenus Symphyomyrtus, Section Adnataria. Flavour and Fragrance J. 10(6):359-364 |
| Eucalyptus desquamata | Leaf | 0 | 0 | -0.23047566655859675 | Bignell, C.M., Dunlop, P.J., Brophy, J.J., and Jackson, J.F. 1995. Volatile Leaf Oils of Some South-western and Southern Australian Species of the Genus Eucalyptus. Part VI. Subgenus Symphyomyrtus, Section Adnataria. Flavour and Fragrance J. 10(6):359-364 |
| Eucalyptus dolichorhyncha | Leaf | -- | 6 | -0.22768883149179484 | Bignell,C.M.,Dunlop,P.J.,Brophy,J.J.,and Jackson, J.F.1994.Volatile Leaf Oils of Some South-western and Southern Australian Species of the Genus Eucalyptus.Part I.Subgenus Symphyomyrtus,Section Dumaria,Series Incrassatae.Flavour and Fragrance J.9(3):113-7 |

| Plant | Part | Low PPM | High PPM | StdDev | Reference |
|-------------------------|---------------|---------|----------|----------------------|---|
| Eucalyptus erythrandra | Leaf | -- | 7 | -0.2272243589806612 | Bignell,C.M.,Dunlop,P.J.,Brophy,J.J.,and Jackson, J.F.1994.Volatile Leaf Oils of Some South-western and Southern Australian Species of the Genus Eucalyptus.Part I.Subgenus Symphyomyrtus,Section Dumaria,Series Incrassatae.Flavour and Fragrance J.9(3):113-7 |
| Eucalyptus fasciculosa | Leaf | 0 | 0 | -0.23047566655859675 | Bignell, C.M., Dunlop, P.J., Brophy, J.J., and Jackson, J.F. 1995. Volatile Leaf Oils of Some South-western and Southern Australian Species of the Genus Eucalyptus. Part VI. Subgenus Symphyomyrtus, Section Adnataria. Flavour and Fragrance J. 10(6):359-364 |
| Eucalyptus forrestiana | Leaf | -- | 17 | -0.2225796338693247 | Bignell,C.M.,Dunlop,P.J.,Brophy,J.J.,and Jackson, J.F.1994.Volatile Leaf Oils of Some South-western and Southern Australian Species of the Genus Eucalyptus.Part I.Subgenus Symphyomyrtus,Section Dumaria,Series Incrassatae.Flavour and Fragrance J.9(3):113-7 |
| Eucalyptus globulus | Essential Oil | -- | -- | | -- |
| Eucalyptus incrassata | Leaf | -- | 14 | -0.22397305140272566 | Bignell,C.M.,Dunlop,P.J.,Brophy,J.J.,and Jackson, J.F.1994.Volatile Leaf Oils of Some South-western and Southern Australian Species of the Genus Eucalyptus.Part I.Subgenus Symphyomyrtus,Section Dumaria,Series Incrassatae.Flavour and Fragrance J.9(3):113-7 |
| Eucalyptus intertexta | Leaf | 0 | 0 | -0.23047566655859675 | Bignell, C.M., Dunlop, P.J., Brophy, J.J., and Jackson, J.F. 1995. Volatile Leaf Oils of Some South-western and Southern Australian Species of the Genus Eucalyptus. Part VI. Subgenus Symphyomyrtus, Section Adnataria. Flavour and Fragrance J. 10(6):359-364 |
| Eucalyptus lansdowneana | Leaf | 0 | 0 | -0.23047566655859675 | Bignell, C.M., Dunlop, P.J., Brophy, J.J., and Jackson, J.F. 1995. Volatile Leaf Oils of Some South-western and Southern Australian Species of the Genus Eucalyptus. Part VI. Subgenus Symphyomyrtus, Section Adnataria. Flavour and Fragrance J. 10(6):359-364 |

| Plant | Part | Low PPM | High PPM | StdDev | Reference |
|-------------------------|------|---------|----------|----------------------|---|
| Eucalyptus largisparsa | Leaf | 0 | 0 | -0.23047566655859675 | Bignell, C.M., Dunlop, P.J., Brophy, J.J., and Jackson, J.F. 1995. Volatile Leaf Oils of Some South-western and Southern Australian Species of the Genus Eucalyptus. Part VI. Subgenus Symphyomyrtus, Section Adnataria. Flavour and Fragrance J. 10(6):359-364 |
| Eucalyptus leucoxylon | Leaf | 0 | 0 | -0.23047566655859675 | Bignell, C.M., Dunlop, P.J., Brophy, J.J., and Jackson, J.F. 1995. Volatile Leaf Oils of Some South-western and Southern Australian Species of the Genus Eucalyptus. Part VI. Subgenus Symphyomyrtus, Section Adnataria. Flavour and Fragrance J. 10(6):359-364 |
| Eucalyptus melanophloia | Leaf | 0 | 0 | -0.23047566655859675 | Bignell, C.M., Dunlop, P.J., Brophy, J.J., and Jackson, J.F. 1995. Volatile Leaf Oils of Some South-western and Southern Australian Species of the Genus Eucalyptus. Part VI. Subgenus Symphyomyrtus, Section Adnataria. Flavour and Fragrance J. 10(6):359-364 |
| Eucalyptus ochrophloia | Leaf | 0 | 0 | -0.23047566655859675 | Bignell, C.M., Dunlop, P.J., Brophy, J.J., and Jackson, J.F. 1995. Volatile Leaf Oils of Some South-western and Southern Australian Species of the Genus Eucalyptus. Part VI. Subgenus Symphyomyrtus, Section Adnataria. Flavour and Fragrance J. 10(6):359-364 |
| Eucalyptus odorata | Leaf | 0 | 0 | -0.23047566655859675 | Bignell, C.M., Dunlop, P.J., Brophy, J.J., and Jackson, J.F. 1995. Volatile Leaf Oils of Some South-western and Southern Australian Species of the Genus Eucalyptus. Part VI. Subgenus Symphyomyrtus, Section Adnataria. Flavour and Fragrance J. 10(6):359-364 |
| Eucalyptus populnea | Leaf | 0 | 0 | -0.23047566655859675 | Bignell, C.M., Dunlop, P.J., Brophy, J.J., and Jackson, J.F. 1995. Volatile Leaf Oils of Some South-western and Southern Australian Species of the Genus Eucalyptus. Part VI. Subgenus Symphyomyrtus, Section Adnataria. Flavour and Fragrance J. 10(6):359-364 |
| Eucalyptus porosa | Leaf | 0 | 0 | -0.23047566655859675 | Bignell, C.M., Dunlop, P.J., Brophy, J.J., and Jackson, J.F. 1995. Volatile Leaf Oils of Some South-western and Southern Australian Species of the Genus Eucalyptus. Part VI. Subgenus Symphyomyrtus, Section Adnataria. Flavour and Fragrance J. 10(6):359-364 |

| Plant | Part | Low PPM | High PPM | StdDev | Reference |
|-----------------------|---------------------|---------|----------|----------------------|---|
| Eucalyptus sparsa | Leaf | 0 | 0 | -0.23047566655859675 | Bignell, C.M., Dunlop, P.J., Brophy, J.J., and Jackson, J.F. 1995. Volatile Leaf Oils of Some South-western and Southern Australian Species of the Genus Eucalyptus. Part VI. Subgenus Symphyomyrtus, Section Adnataria. Flavour and Fragrance J. 10(6):359-364 |
| Eucalyptus stoatei | Leaf | -- | 13 | -0.2244375239138593 | Bignell, C.M., Dunlop, P.J., Brophy, J.J., and Jackson, J.F. 1994. Volatile Leaf Oils of Some South-western and Southern Australian Species of the Genus Eucalyptus. Part I. Subgenus Symphyomyrtus, Section Dumaria, Series Incrassatae. Flavour and Fragrance J. 9(3):113-7 |
| Eucalyptus tetraptera | Leaf | -- | 27 | -0.2179349087579882 | Bignell, C.M., Dunlop, P.J., Brophy, J.J., and Jackson, J.F. 1994. Volatile Leaf Oils of Some South-western and Southern Australian Species of the Genus Eucalyptus. Part I. Subgenus Symphyomyrtus, Section Dumaria, Series Incrassatae. Flavour and Fragrance J. 9(3):113-7 |
| Eucalyptus viridis | Leaf | 0 | 0 | -0.23047566655859675 | Bignell, C.M., Dunlop, P.J., Brophy, J.J., and Jackson, J.F. 1995. Volatile Leaf Oils of Some South-western and Southern Australian Species of the Genus Eucalyptus. Part VI. Subgenus Symphyomyrtus, Section Adnataria. Flavour and Fragrance J. 10(6):359-364 |
| Foeniculum vulgare | Essential Oil | -- | 800 | -0.668591700316715 | Jim Duke's personal files. |
| Glycyrrhiza glabra | Root | -- | -- | | -- |
| Glycyrrhiza glabra | Rhizome Essent. Oil | -- | -- | | -- |
| Hedeoma pulegioides | Plant | -- | -- | | -- |
| Houttuynia cordata | Essential Oil | -- | -- | | -- |

| Plant | Part | Low PPM | High PPM | StdDev | Reference |
|--------------------------|-------------------------|---------|----------|----------------------|--|
| Houttuynia cordata | Shoot Essent. Oil | -- | -- | | -- |
| Humulus lupulus | Fruit | -- | -- | | CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses |
| Humulus lupulus | Essential Oil | -- | -- | | -- |
| Hyacinthus orientalis | Flower | 0.048 | 0.69 | -0.5155613303828618 | -- |
| Hypericum perforatum | Plant | 4 | 72 | -0.4372882513568854 | -- |
| Hyssopus officinalis | Flower | 0.5 | 6 | -0.5144293278566698 | Flavour and Fragrance Journal, 6: 72. |
| Hyssopus officinalis | Leaf | 0.1 | 2 | -0.22954672153632943 | Flavour and Fragrance Journal, 6: 72. |
| Iris x germanica | Rhizome | -- | -- | | -- |
| Jasminum officinale | Flower | 240 | 380 | -0.43469882977837093 | -- |
| Juglans nigra | Essential Oil | 13000 | 13000 | -0.5370301076737485 | -- |
| Juniperus sabina | Plant | -- | -- | | -- |
| Lantana camara | Leaf | -- | -- | | -- |
| Laurus nobilis | Fruit | -- | -- | | Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980. |
| Laurus nobilis | Leaf | -- | -- | | -- |

| Plant | Part | Low PPM | High PPM | StdDev | Reference |
|------------------------|------------------|---------|----------|----------------------|--|
| Laurus nobilis | Leaf Essent. Oil | -- | 13000 | -1.1455624970792637 | -- |
| Lavandula angustifolia | Flower | -- | -- | | Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980. |
| Lavandula latifolia | Plant | 3 | 21 | -0.44605212101672376 | Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980. |
| Lavandula x intermedia | Plant | 20 | 36 | -0.4434745122932419 | Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980. |
| Levisticum officinale | Root | -- | -- | | Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980. |
| Lippia alba | Plant | -- | -- | | Grenand, P., Moretti, C., and Jacquemin, H. 1987. Pharmacopees Traditionnelles en Guyane. l'ORSTROM, Paris. 569 pp. |
| Litsea glaucescens | Shoot | 2 | 3 | -0.5075389948395156 | Tucker, et al, EB46(1):21-24.1992 |
| Lonicera japonica | Flower | -- | -- | | Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp. |
| Malus domestica | Plant | -- | -- | | -- |
| Mangifera indica | Flower | -- | -- | | -- |
| Matricaria recutita | Plant | -- | -- | | Kameoka, H. and Nakai, K. 1987. Components of essential oil from the root of Glycyrrhiza-glabra. Nippon Gogeikagaku Kaishi 61(9): 1119-1122. |
| Medicago sativa | Leaf | -- | -- | | -- |
| Melissa officinalis | Shoot | 1 | 65 | -0.4686609992158695 | Deutsche Apot. Ztit. 129(4):155-163. W. Schulze et al. Die Melisse. |
| Mentha longifolia | Shoot | 1 | 115 | -0.4373077769387356 | Fleisher, Z. and Fleisher, A. 1991. The Essential Oils from Mentha longifolia Growing in Sinai and Israel. J. Ess. Oil Res., 3: 57. |

| Plant | Part | Low PPM | High PPM | StdDev | Reference |
|--------------------|------------------|---------|----------|----------------------|--|
| Mentha spicata | Leaf | -- | -- | | Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980. |
| Monarda didyma | Flower | 4 | 4 | -0.5148556941565537 | Flavour and Fragrance Journal, 6: 80. |
| Monarda didyma | Leaf | 14 | 25 | -0.21886385378025552 | -- |
| Monarda fistulosa | Plant | 1 | 29450 | 4.611044353873137 | Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980. |
| Myristica fragrans | Seed | -- | -- | | Leung, A.Y., Encyclopedia of Common Natural Ingredients Used in Food, Drugs, and Cosmetics, John Wiley & Sons, New York, 1980. |
| Myristica fragrans | Seed Essent. Oil | 36000 | 119000 | 1.166054423172743 | -- |
| Myristica fragrans | Essential Oil | -- | -- | | -- |
| Myrtus communis | Plant | 1 | 2 | -0.44931709206646747 | -- |
| Myrtus communis | Leaf | 1 | 2 | -0.19564022822357305 | -- |
| Nepeta cataria | Plant | -- | -- | | Williamson, E. M. and Evans, F. J., Potter's New Cyclopaedia of Botanical Drugs and Preparations, Revised Ed., Saffron Walden, the C. W. Daniel Co., Ltd., Essex UK, 362 pp, 1988, reprint 1989. |
| Nepeta cataria | Leaf | -- | -- | | -- |
| Nepeta cataria | Essential Oil | 255000 | 255000 | 2.072634270981816 | -- |
| Nepeta racemosa | Shoot | 70 | 70 | -0.4655256769881561 | Baser, K.H.C., Ozek, T., Akgul, A. and Tumen, G. 1993. Composition of the Essential Oil of Nepeta racemosa Lam. J. Ess. Oil Res. 5: 215-7. |

| Plant | Part | Low PPM | High PPM | StdDev | Reference |
|--------------------|-------------------|---------|----------|----------------------|---|
| Nepeta racemosa | Shoot | -- | 70 | -0.4655256769881561 | Baser, K.H.C., Ozek, T., Akgul, A. and Tumen, G. 1993. Composition of the Essential Oil of Nepeta racemosa Lam. J. Ess. Oil Res. 5: 215-7. |
| Ocimum basilicum | Plant | 1 | 1000 | -0.27782019166414046 | Duke, J. A. Writeups or information summaries on approximately 2,000 economic plants, USDA, ARS, Beltsville, MD 20705. |
| Ocimum basilicum | Plant | -- | 3 | -0.44914525148490203 | Die Nahrung. Pino, J., Rosado, A., Goire, I., Roncal, E., and Garcia, I. 1993. Analysis of the Essential Oil from Cuban Basil. Die Nahrung 37:(5): 501-504. |
| Ocimum basilicum | Essential Oil | -- | 100000 | 0.4011550201900289 | -- |
| Ocimum basilicum | Shoot Essent. Oil | 1100 | 3900 | | -- |
| Ocimum canum | Shoot | -- | -- | | =ICMR(Indian Council of Medical Research).1976.Medicinal Plants of India.Vol.1.Indian Council of Med. Res.Cambridge Printing Works, New Delhi.487 pp;ICMR.1987.Medicinal Plants of India.Vol.2.Indian Council of Med. Res.Cambr. Printing Works,New Delhi.600pp |
| Ocimum gratissimum | Flower | 11010 | 14245 | 2.521085544167122 | Charles, D.J. and Simon, J.E. 1992. A New Geraniol Chemotype of Ocimum gratissimum L. J. Ess. Oil Res. 4: 231-234. |
| Ocimum gratissimum | Leaf | 10335 | 13455 | 6.019001970744656 | Charles, D.J. and Simon, J.E. 1992. A New Geraniol Chemotype of Ocimum gratissimum L. J. Ess. Oil Res. 4: 231-234. |
| Origanum majorana | Plant | -- | -- | | Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980. |
| Origanum majorana | Essential Oil | -- | 0 | -0.677218689998221 | -- |
| Origanum onites | Shoot | 48 | 48 | -0.47932109479009505 | Biondi, D., Cianci, P., Geraci, C. and Ruberto, G. 1993. Antimicrobial Activity and Chemical Composition of Essential Oils from Sicilian Aromatic Plants. Flav. & Frag. J. 8: 331-7. |

| Plant | Part | Low PPM | High PPM | StdDev | Reference |
|------------------------|-------|---------|----------|----------------------|---|
| Origanum syriacum | Shoot | 65 | 65 | -0.4686609992158695 | Fleisher, A. & Fleisher, Z. 1991. Chemical Composition of Origanum syriacum L. Essential Oil. J. Ess. Oil Res. 3: 121-123. |
| Origanum syriacum | Shoot | -- | 0 | -0.5094201881761437 | Fleisher, A. & Fleisher, Z. 1991. Chemical Composition of Origanum syriacum L. Essential Oil. J. Ess. Oil Res. 3: 121-123. |
| Origanum syriacum | Shoot | -- | 65 | -0.4686609992158695 | Fleisher, A. & Fleisher, Z. 1991. Chemical Composition of Origanum syriacum L. Essential Oil. J. Ess. Oil Res. 3: 121-123. |
| Origanum vulgare | Plant | 0.5 | 0.5 | -0.44957485293881566 | Sezik, E., Tumen, G., Kirimer, N., Ozek, T., and Baser, K.H.C. 1993. Essential Oil Composition of Four Origanum vulgare Subspecies of Anatolian Origin. J. Ess. Oil Res., 5: 425-431. |
| Origanum vulgare | Plant | 2.5 | 2.5 | -0.4492311717756847 | Sezik, E., Tumen, G., Kirimer, N., Ozek, T., and Baser, K.H.C. 1993. Essential Oil Composition of Four Origanum vulgare Subspecies of Anatolian Origin. J. Ess. Oil Res., 5: 425-431. |
| Origanum vulgare | Plant | 1.5 | 1.5 | -0.4494030123572502 | Sezik, E., Tumen, G., Kirimer, N., Ozek, T., and Baser, K.H.C. 1993. Essential Oil Composition of Four Origanum vulgare Subspecies of Anatolian Origin. J. Ess. Oil Res., 5: 425-431. |
| Origanum vulgare | Plant | -- | -- | | Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980. |
| Pelargonium graveolens | Plant | 2 | 1400 | -0.2090839590379573 | -- |
| Pelargonium roseum | Shoot | -- | 3276 | 1.5448429354216695 | -- |
| Petroselinum crispum | Leaf | 1.26 | 1.26 | -0.22989043119456826 | -- |
| Peumus boldus | Leaf | 14 | 30 | -0.21654149122458727 | -- |
| Pimenta racemosa | Leaf | 0 | 560 | 0.02962893967624691 | -- |

| Plant | Part | Low PPM | High PPM | StdDev | Reference |
|------------------------------|---------------|---------|----------|----------------------|--|
| Plumeria acutifolia | Flower | -- | -- | | -- |
| Polianthes tuberosa | Flower | -- | -- | | -- |
| Prunus armeniaca | Essential Oil | -- | -- | | -- |
| Prunus dulcis | Flower | -- | -- | | -- |
| Pycnanthemum pycnanthemoides | Shoot | 1911 | 2842 | 1.2726969660561473 | Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980. |
| Pycnanthemum virginianum | Shoot | -- | -- | | Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980. |
| Ravensara aromatica | Bark | -- | 22 | -1 | -- |
| Ribes nigrum | Fruit | -- | -- | | List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979. |
| Ribes nigrum | Leaf | 12 | 12 | -0.22490199642499295 | List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979. |
| Rosa centifolia | Essential Oil | -- | -- | | -- |
| Rosa damascena | Essential Oil | -- | -- | | -- |
| Rosa gallica | Flower | 100 | 275 | -0.4570830605222784 | -- |
| Rosmarinus officinalis | Plant | 50 | 370 | -0.386079758050379 | J. Ethnopharmacology, 39: 167. |

| Plant | Part | Low PPM | High PPM | StdDev | Reference |
|------------------------|---------------------|---------|----------|---------------------|---|
| Rosmarinus officinalis | Resin, Exudate, Sap | -- | -- | | -- |
| Rosmarinus officinalis | Shoot | -- | 0.5 | -0.5091066559533722 | Tucker, A. O. and Maciarello, M. J. 1998. The essential oils of some rosemary cultivars. Flavor and Fragrance Journal, 1: 137-142. 1986. |
| Rubus idaeus | Fruit | -- | -- | | -- |
| Salvia dorisiana | Shoot | 0 | 0 | -0.5094201881761437 | Tucker, A.O. & Maciarello, M.J. 1994. The Essential Oil of Salvia dorisiana Standley. J. Ess. Oil Res. 6: 97-8. |
| Salvia officinalis | Plant | -- | -- | | Stitt, Paul. Why George should eat broccoli. |
| Salvia sclarea | Plant | 22 | 735 | -0.3233579457789868 | Flavour and Fragrance Journal, 6: 154. |
| Santalum album | Wood | -- | -- | | -- |
| Satureja cuneifolia | Shoot | 115 | 115 | -0.4373077769387356 | Tumen, G. 1991. The Volatile Constituents of Satureja cuneifolia. J. Ess. Oil Res., 3: 365-366. |
| Satureja hortensis | Plant | -- | -- | | List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979. |
| Satureja montana | Plant | -- | -- | | Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980. |
| Satureja obovata | Leaf | 0.01 | 0.01 | -0.2304710218334853 | Arrebola, M.L., Navaro, M.C., Jimenez, J. and Ocana, F.A. 1994. Variations in Yield and Composition of the Essential Oil of Satureja obovata. Phytochemistry 35(1): 83. |
| Satureja obovata | Leaf | -- | -- | | Arrebola, M.L., Navaro, M.C., Jimenez, J. and Ocana, F.A. 1994. Variations in Yield and Composition of the Essential Oil of Satureja obovata. Phytochemistry 35(1): 83. |
| Satureja obovata | Leaf | -- | -- | | Arrebola, M.L., Navaro, M.C., Jimenez, J. and Ocana, F.A. 1994. Variations in Yield and Composition of the Essential Oil of Satureja obovata. Phytochemistry 35(1): 83. |

| Plant | Part | Low PPM | High PPM | StdDev | Reference |
|----------------------------|---------------|---------|----------|----------------------|--|
| Satureja obovata | Leaf | -- | -- | | Arrebola, M.L., Navaro, M.C., Jimenez, J. and Ocana, F.A. 1994. Variations in Yield and Composition of the Essential Oil of Satureja obovata. Phytochemistry 35(1): 83. |
| Satureja obovata | Shoot | 1 | 315 | -0.3118948878302 | Fitoterapia No.60: 277. |
| Scutellaria parvula | Plant | 1 | 1 | -0.4494889326480329 | Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980. |
| Sideritis scardica | Shoot | 245 | 245 | -0.35578939901818746 | Menkovic, N., et al. 1991. The Essential Oil of Sideritis scardica. Pl. Med. 57. Suppl. 2. pp. A137-A132. |
| Skimmia arborescens | Leaf | -- | -- | | ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes. |
| Solanum tuberosum | Plant | -- | -- | | -- |
| Stachytarpheta cayennensis | Plant | -- | -- | | -- |
| Stevia rebaudiana | Leaf | -- | 9 | -0.2262954139583939 | Kinghorn, A. D. (Ed.) 2002. Medicinal and Aromatic Plants - Industrial Profiles. Stevia. The genus Stevia. Taylor & Francis. New York, NY. 211 pp. |
| Stevia rebaudiana | Plant | -- | 20 | -0.4462239615982892 | Kinghorn, A. D. (Ed.) 2002. Medicinal and Aromatic Plants - Industrial Profiles. Stevia. The genus Stevia. Taylor & Francis. New York, NY. 211 pp. |
| Tagetes minuta | Plant | -- | -- | | List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979. |
| Tamarindus indica | Essential Oil | -- | -- | | Williamson, E. M. and Evans, F. J., Potter's New Cyclopaedia of Botanical Drugs and Preparations, Revised Ed., Saffron Walden, the C. W. Daniel Co., Ltd., Essex UK, 362 pp, 1988, reprint 1989. |
| Telosma cordata | Flower | 4439 | 4439 | 0.4306115758361085 | K. Furukawa, T. Arai, S. Hashimoto, (1993); Volatile components of Telosma cordata Merrill flowers, Flavour Fragr. J., Vol 8, 221-223. |
| Thymus capitatus | Plant | 40 | 40 | -0.44278714996698004 | Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980. |

| Plant | Part | Low PPM | High PPM | StdDev | Reference |
|----------------------|---------------|---------|----------|---------------------|--|
| Thymus capitatus | Shoot | 0 | 0 | -0.5094201881761437 | Biondi, D., Cianci, P., Geraci, C. and Ruberto, G. 1993. Antimicrobial Activity and Chemical Composition of Essential Oils from Sicilian Aromatic Plants. Flav. & Fragr. J. 8: 331-7. |
| Thymus funkii | Shoot | 8 | 8 | -0.5044036726118022 | Vila, R., et al. 1995. Composition and study of the variability of the essential oil of Thymus funkii Cousson. Flav. & Fragr. J. 10(6): 379-383. |
| Thymus funkii | Shoot | -- | 8 | -0.5044036726118022 | Vila, R., et al. 1995. Composition and study of the variability of the essential oil of Thymus funkii Cousson. Flav. & Fragr. J. 10(6): 379-383. |
| Thymus longicaulis | Shoot | 5500 | 5500 | 2.939434262308586 | Baser, K.H.C., Ozek, T., Kirimer, N. and Tumen, G. 1993. The Occurrence of Three Chemotypes of Thymus longicaulis C. Presl subsp. longicaulis in the same Population. J. Ess. Oil Res. 5: 291-5. |
| Thymus longicaulis | Shoot | -- | 0 | -0.5094201881761437 | Baser, K.H.C., Ozek, T., Kirimer, N. and Tumen, G. 1993. The Occurrence of Three Chemotypes of Thymus longicaulis C. Presl subsp. longicaulis in the same Population. J. Ess. Oil Res. 5: 291-5. |
| Thymus longicaulis | Shoot | -- | 5500 | 2.939434262308586 | Baser, K.H.C., Ozek, T., Kirimer, N. and Tumen, G. 1993. The Occurrence of Three Chemotypes of Thymus longicaulis C. Presl subsp. longicaulis in the same Population. J. Ess. Oil Res. 5: 291-5. |
| Thymus mastichina | Plant | 20 | 20 | -0.4462239615982892 | Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980. |
| Thymus serpyllum | Plant | -- | -- | | List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979. |
| Thymus vulgaris | Plant | 0 | 10660 | 1.3821598262581827 | -- |
| Thymus vulgaris | Essential Oil | -- | -- | | -- |
| Thymus x citriodorus | Plant | 6130 | 6130 | 0.6037219917666586 | Stahl-Biskup, E. and Holthuijzen, J. 1995. Essential oil and glycosidally bound volatiles of lemon-scented thyme, Thymus x citriodorus (Pers.) Schreb. Flav. & Fragr. J. 10: 225-229. |

| Plant | Part | Low PPM | High PPM | StdDev | Reference |
|--------------------------|-------------------|---------|----------|----------------------|--|
| Thymus zygis | Shoot | 0 | 2350 | 0.96418125884915 | De Cunha, A.P. and Salguiero, L.R. 1991. The Chemical Polymorphism of Thymus zygis ssp. sylvestris from Central Portugal. J. Ess. Oil Res. 3: 409-12. |
| Thymus zygis | Shoot | 14 | 14 | -0.5006412859385461 | Jimenez, J., Navarro, M.C., Montilla, M.P., Martin, A. and Martinez, A. 1993. Thymus zygis Oil: Its Effects on CCl4-Induced Hepatotoxicity and Free Radical Scavenger Activity. JEO5: 153-8. |
| Tilia sp. | Flower | -- | -- | | -- |
| Trifolium pratense | Flower | -- | 3 | -0.5150688773064958 | Buchnauer,G.,Jirovetz,L.,Nikiforov,A.1996.Comparative Investigation of Essential Clover Flower Oils from Austria Using Gas Chromatography-Flame Ionization Detection,Gas Chromatography-Mass Spectometry,and Gas Chrom.-Olfactometry.J.Agric.Food Chem.44:1827-8 |
| Umbellularia californica | Plant | 10 | 40 | -0.44278714996698004 | -- |
| Vaccinium corymbosum | Fruit | 0.01 | 0.03 | -0.6117485494795332 | -- |
| Vaccinium myrtillus | Fruit Juice | -- | -- | | -- |
| Valeriana officinalis | Root | 1 | 120 | -1 | Father Nature's Farmacy: The aggregate of all these three-letter citations. |
| Vitis vinifera | Leaf Essent. Oil | 145200 | 145200 | 0.2933293044777782 | -- |
| Vitis vinifera | Fruit | -- | -- | | ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes. |
| Zanthoxylum alatum | Fruit | -- | -- | | ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes. |
| Zea mays | Silk Stigma Style | -- | -- | | -- |

| Plant | Part | Low PPM | High PPM | StdDev | Reference |
|---------------------|---------------------------|----------------|-----------------|---------------|------------------|
| Zingiber officinale | Rhizome | 2 | 345 | | -- |
| Zingiber officinale | Rhizome Essent. Oil | -- | 6900 | | -- |